EDUCATION SCIENCE CENTRE KAMPALA

**SCIENCE EDUCATION CENTRE KAMPALA**

"MAKING SCIENCES PASSABLE"

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# ULSCE SCIENCE BOOSTER PACKAGE 2024

## CHEMISTRY PAPER 1

## 545/1

## SET 2

**2HOURS**

**Name:**.....

**Signature** .....

| Random number | | | | | | personal number | | |
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**INSTRUCTIONS TO CANDIDATES.**

- This paper consists of two sections **A** and **B**.
- Answer all the items in section A in the spaces provided.
- Section **B** has **two** parts **I** and **II**. Answer **one** item from each part.
- Answer **four** items in all.
- Any additional item(s) answered will not be scored.

**FOR EXAMINER'S USE ONLY**

| SECTIONS | SCORE | EXAMINER |
|---|---|---|
| A | | |
| B | | |
| Total score | | |

## SECTION A

Answer ***all*** items in from this section.

**Item 1**

Mary's house maid often prefers using wood charcoal to natural gas for cooking which results in some delays in the preparation of food compared to the days natural gas is used. Mary now wants to know the cause such that the maid can be advised accordingly.

**Task**

Using your knowledge of chemistry,

(a) Help Mary;

(i) categorize the product Mary's maid preferred.

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(ii) understand how the product works.

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(b) Advise Mary on long term use of the desired product.

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(c) How do the two fuels compare with each other?

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**Item 2**

A donation to the school of sports and games equipment comprised of balls, nets, flags, javelin short put and pressure pumps. The prefect realized the equipment were made of different materials and that their nature and properties influenced their purpose. However, the games master was disappointed when he asked the prefects to sort the equipment for storage and he couldn't.

**Task**

As a student of chemistry;

(a) help the prefect with reason categorize the materials.

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(b) state the properties of the materials that influenced their suitability.

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(c) advise the prefect on the choice of materials for the different equipment.

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(d) What is the impact of the materials on the environment?

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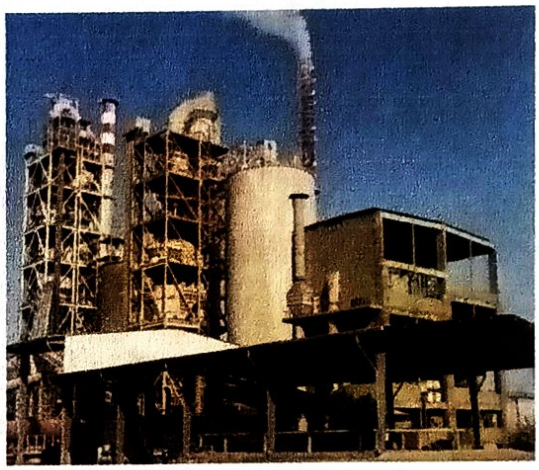
## SECTOIN B

### PART 1

Answer only ***one*** item from this part.

**Item 3**

In most areas, buildings are at a standstill due to unaffordability of cement. Residents of a certain village have been quarrying rocks in their area and were told that the same rocks could form cement.
An investor through the LCV chairperson wants to set up a cement producing industry in the area but this has attracted resistance from many residents. The residents claim ignorance of the entire process and have demanded to be educated for proper decision making.



**Task**

Using your knowledge of chemistry, make a write up of the expected presentation of the LCV chairperson to the residents covering the process of production, impact on the environment, mitigation and social benefits.

**Item 4**

The collapse of tall buildings and bridges, has partly been blamed on low grade materials used in construction. The ores for extraction of iron are abundant in Osukuru. A company intends to build an industry in the area and the officials want to meet the residents for an educative talk.

**Task**

As a chemistry learner, make a write up of what the company officials would present to the residents.

## PART II

Answer only ***one*** item from this part.

**Item5**

Kalonzo a compound cleaner advised students not to burn rubbish on the school compound but seek other means of disposal. This resulted into accumulation of garbage which made the deputy head teacher to intervene and ordered for the rubbish to be burnt. This activity did not go well with the learners in the adjacent classrooms. The lessons were abandoned as the students and teachers sought for safer places.

**Task**

Make a write up of why Kalonzo could be right in his advice to the students.

**Item 6**

Kigayaza residents practice stone quarrying to earn a living. The quarry is on school land. The board of governors of the school have deemed it necessary to stop this activity because of its associated challenges. The community feels it is not right for the school authorities to stop them from using the natural resource and have organized through the LC1 chairperson for a meeting with the school authorities.

**Task**

As a student of chemistry, prepare a write up of the presentation you expect the school authorities to deliver to the community covering the identity of the natural resource, its composition, impact on the environment, how it occurs, mitigation and social benefits.

**END**